State of Utah
Administrative Rule Analysis

# NOTICE OF PROPOSED RULE

The agency identified below in box 1 provides notice of proposed rule change pursuant to *Utah Code* Sections 63-46a-4. Please address questions regarding information on this notice to the agency. The full text of all rule filings is published in the *Utah State Bulletin* unless excluded because of space constraints. The full text of all rule filings my also be inspected at the Division of Administrative Rules.

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| DAR file no: | | Date filed: | |
| Utah Admin. Code ref. (R no.): | R156-56 | Time filed: | |
| Changed to Admin. Code Ref. (R no.): | | | |

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| 1. | Agency: | Commerce/Division of Occupational and Professional Licensing | | |
| | Room no.: | | | |
| | Building: | Heber M. Wells Building | | |
| | Street address 1: | 160 East 300 South | | |
| | Street address 2: | | | |
| | City, state, zip: | Salt Lake City UT 84111-2316 | | |
| | Mailing address 1: | PO Box 146741 | | |
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| | City, state, zip: | Salt Lake City UT 84114-6741 | | |
| | **Contact person(s):** | | | |
| | **Name:** | **Phone:** | **Fax:** | **E-mail:** |
| | Dan S. Jones | 801-530-6720 | 801-530-6511 | dsjones@utah.gov |
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(Interested persons may inspect this filing at the above address or at DAR between 8:00 a.m. and 5:00 p.m. on business days.)

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| **2.** | **Title of rule or section** (catchline)**:** |
| | Utah Uniform Building Standard Act Rules |
| **3.** | **Type of notice:** |
| | New ___; Amendment XX; Repeal ___; Repeal and Reenact ___ |
| **4.** | **Purpose of the rule or reason for the change:** |
| | The Division is filing amendments to the rule to implement the semiannual proposed changes to building codes that have been approved bv the Uniform Building Code Commission after review by the appropriate subcommittees. The Division is also filing amendments to the rule to implement new sections regarding manufactured housing which are required as a result of statute changes to Title 58, Chapter 56 made in SB 88. |
| **5.** | **This change is a response to comments from the Administrative Rules Review Committee.** |
| | Yes ___; No XX |
| **6.** | **Summary of the rule change:** |

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| | Section 302-Licensure of Inspectors: Proposed amendment deletes the outdated provision that allowed building inspectors who passed the state administered examination to be issued or renewed a license. New Section 603-Factory Built Housing Dispute Resolution Program and Section 604-Factory Built Housing Continuing Education Requirements: Proposed new sections, as well as statute amendments made in SB 88, allow the state to continue to be approved by HUD as the State Administrative Agency for manufactured housing. Amendmenets also clarify the provisions of the new statute at Section 58-56-15. There is no real change in current practices implemented by the proposed two new sections. These amendments are being proposed to clarify what is meant to satisfy the HUD requirements. Section 701-Specific Editions of the Uniform Building Standards: Added as an additional construction standard for existing buildings the "Pre-standard and Commentary for the Seismic Rehabilitation of Buildings" (FEMA 356), published by the Federal Emergency Management Agency. Section 707-Statewide Amendments to the IPC: Amended Table 608.1.1 to correct the referenced applicable standard for specialty backflow devices. Section 709-Statewide Amendments to the IFGC: Amendment added to Section 305.1 which requires a sticker on equipment to verify that required adjustments have been made to natural gas space and water heaters. Section 711-Statewide Amendments to the IRC: Amendment to R313.2 in paragraph (16) clarifies the existing language on the requirement of carbon monoxide detectors in new residential structures. |
| **7.** | **Aggregate anticipated cost or savings to:** |
| | **A) State budget:** |
| | The Division has determined that there should be no direct effect on the state budget as a result of the proposed amendments. The program is already in place for the factory built housing dispute resolution program. |
| | **B) Local government:** |
| | The Division has determined that there should be no direct effect on a local government budget as a result of the proposed amendments. There is a potential for minor savings in the time spent reviewing plans and inspections for carbon monoxide alarms and green stickers. |
| | **C) Other persons:** |
| | Overall the proposed amendments does not appear to substantially change costs of construction. Some will allow minor savings to building owners and residential homes. It is impossible to estimate total aggregate impact because it would depend on the specific project but cost differences are expected to be minor. The estimated item by item impact of the proposed amendments to owners is estimated as follows: R156-56-302(2)(c)(i) - No impact because the section being removed is outdated and therefore is not currently being used. R156-56-603 - No impact because these procedures are already being used within the Division. R156-56-604 - No impact because the continuing education requirement is already contained in statute in Title 58, Chapter 55. R156-56-701(2)(e) - By adopting the FEMA construction standard, it can result in some savings to construction projects. R156-56-707 Table 608.1.1 - No impact. R156-56-709 Section 305.1 - No impact. The required green sticker will be supplied by Questar Gas free of charge to installers. There could be a savings to the homeowner by preventing the same adjustment from being done more than once. R156-56-711 Section R313.2 - No impact as this is already a requirement but the change is a only a technical amendment to clarify the language. |
| **8.** | **Compliance costs for affected persons**<br>("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization or any character other than an agency)**:** |
| | Overall the proposed amendments does not appear to substantially change costs of construction. Some will allow minor savings to building owners and residential homes as identified above. |
| **9.** | **Comments by the department head on the fiscal impact the rule may have on businesses:** |
| | The proposed amendments include the following: various technical changes to clarify and update the rule, adoption of a dispute resolution program and a continuing education requirement as required by statute, the option of another standard for existing buildings, and a sticker requirement after adjustments on appliances. There appears to be no appreciable impact to businesses as a result of these amendments, as most are technical and clarifying of existing procedures. Although there may be cost savings as a result of the sticker requirement for appliances and the option of FEMA standards for existing buildings, the amount of savings is difficult to determine. Klarice A. Bachman, Executive Director |

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| **10.** | **This rule change is authorized or mandated by state law, and implements or interprets the following state and federal laws.**<br>**State code or constitution citations** (required)**:** | | |
| | Subsections 58-1-106(1)(a), 58-1-202(1)(a), 58-56-4(2) and 58-56-6(2)(a) and Section 58-56-1 | | |
| **11.** | **This rule adds, updates, or otherwise changes the following titles of materials incorporated by references** (a copy of materials incorporated by reference must be submitted to DAR; if none, leave blank)**:** | | |
| | Adds "Pre-standard and Commentary for the Seismic Rehabilitation of Buildings" (FEMA 356), published by the Federal Emergency Management Agency. | | |
| **12.** | **The public may submit written or oral comments to the agency identified in box 1.** (The public may also request a hearing by submitting a written request to the agency. The agency is required to hold a hearing if it receives requests from ten interested persons or from an association having not fewer than ten members. Additionally, the request must be received by the agency not more than 15 days after the publication of this rule in the *Utah State Bulletin*. See Section 63-46a-5 and Rule R15-1 for more information.) | | |
| | **A) Comments will be accepted until 5:00 p.m. on** (mm/dd/yyyy)**:** | | 12/01/2004 |
| | **B) A public hearing (optional) will be held:** | | |
| | **on** (mm/dd/yyyy)**:** | **at** (time)**:** | **At** (place)**:** |
| | 11/15/2004 | 9:00 am | State Office Building, Room 4112, Salt Lake City, Utah |
| | | | |
| | | | |
| **13.** | **This rule change may become effective on** (mm/dd/yyyy)**:** | | 12/02/2004 |
| | NOTE: The date above is the date on which this rule MAY become effective. It is *NOT* the effective date. After the date designated in Box 12(A) above, the agency *must* submit a Notice of Effective Date to the Division of Administrative Rules to make this rule effective. Failure to submit a Notice of Effective Date will result in this rule lapsing and will require the agency to start the rulemaking process over. | | |
| **14.** | **Indexing information -- keywords** (maximum of four, in lower case, except for acronyms (e.g., "NASA") or proper nouns (e.g., "Medicaid")**:** | | |
| | contractors | building codes | |
| | building inspection | licensing | |
| **15.** | **Attach an RTF document containing the text of this rule change** (filename)**:** | | R156-56.pro.rtf |

**To the agency**: Information requested on this form is required by Sections 63-46a-4, 5, 6, and 10. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the *Utah State Bulletin*, and delaying the first possible effective date.

## AGENCY AUTHORIZATION

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| **Agency head or designee, and title:** | | **Date** (mm/dd/yyyy)**:** | |



**R156. Commerce, Occupational and Professional Licensing.**
**R156-56. Utah Uniform Building Standard Act Rules.**
**R156-56-302. Licensure of Inspectors.**

In accordance with Subsection 58-56-9(1), the licensee classifications, scope of work, qualifications for licensure, and application for license are established as follows:

(1) License Classifications. Each inspector required to be licensed under Subsection 58-56-9(1) shall qualify for licensure and be licensed by the division in one of the following classifications:

(a) Combination Inspector; or

(b) Limited Inspector.

(2) Scope of Work. The scope of work permitted under each inspector classification is as follows:

(a) Combination Inspector.

(i) Inspect the components of any building, structure or work for which a standard is provided in the specific edition of the codes adopted under these rules or amendments to these codes as included in these rules.

(ii) Determine whether the construction, alteration, remodeling, repair or installation of all components of any building, structure or work is in compliance with the adopted codes.

(iii) After determination of compliance or noncompliance with the adopted codes take appropriate action as is provided in the aforesaid codes.

(b) Limited Inspector.

(i) A Limited Inspector may only conduct activities under Subsections (ii), (iii) or (iv) for which the Limited Inspector has maintained current certificates under the adopted codes as provided under Subsections R156-56-302(3)(b) and R156-56-302(2)(c)(ii).

(ii) Subject to the limitations of Subsection (i), inspect the components of any building, structure or work for which a standard is provided in the specific edition of the codes adopted under these rules or amendments to these codes as included in these rules.

(iii) Subject to the limitations under Subsection (i), determine whether the construction, alteration, remodeling, repair or installation of components of any building, structure or work is in compliance with the adopted codes.

(iv) Subject to the limitations under Subsection (i), after determination of compliance or noncompliance with the adopted codes, take appropriate action as is provided in the adopted codes.[

~~(c) Transitional Provisions.~~

~~(i) The state administered examinations upon which prior licenses were granted or upon which new limited inspector licenses may be granted shall be considered as current certification until March 1, 2004. Thereafter, licenses may not be granted or renewed unless the person has obtained current certificates issued by a national organization.~~]

(3) Qualifications for Licensure. The qualifications for licensure for each inspector classification are as follows:

(a) Combination Inspector.

Has passed the examination for and maintained as current the following national certifications for codes adopted under these rules:

(i) the "Combination Inspector Certification" issued by the International Code Council; or

(ii) all of the following certifications:

(A) the "Building Inspector Certification" issued by the International Code Council or both the "Commercial Building Inspector Certification" and the "Residential Building Inspector Certification" issued by the International Code Council;

(B) the "Electrical Inspector Certification" issued by the International Code Council or the "General Electrical Certification" issued by the International Association of Electrical Inspectors, or both the "Commercial Electrical Inspector Certification" and the "Residential Electrical Inspector Certification" issued by the International Code Council;

(C) the "Plumbing Inspector Certification" issued by the International Code Council, or both the "Commercial Plumbing Inspector Certification" and the "Residential Plumbing Inspector Certification" issued by the International Code Council; and

(D) the "Mechanical Inspector Certification" issued by the International Code Council or both the "Commercial Mechanical Inspector Certification" and the "Residential Mechanical Inspector Certification" issued by the International Code Council.

(b) Limited Inspector.

Has passed the examination for and maintained as current one or more of the following national certifications for codes adopted under these rules:

(i) the "Building Inspector Certification" issued by the International Code Council;

(ii) the "Electrical Inspector Certification" issued by the International Code Council or the "General Electrical Certification" issued by the International Association of Electrical Inspectors;

(iii) the "Plumbing Inspector Certification" issued by the International Code Council;

(iv) the "Mechanical Inspector Certification" issued by the International Code Council;

(v) the "Residential Combination Inspector Certification" issued by the International Code Council;

(vi) the "Commercial Combination Certification" issued by the International Code Council;

(vii) the "Commercial Building Inspector Certification" issued by the International Code Council;

(viii) the "Commercial Electrical Inspector Certification" issued by the International Code Council;

(ix) the "Commercial Plumbing Inspector Certification" issued by the International Code Council;

(x) the "Commercial Mechanical Inspector Certification issued by the International Code Council;

(xi) the "Residential Building Inspector Certification" issued by the International Code Council;

(xii) the "Residential Electrical Inspector Certification" issued by the International Code Council;

(xiii) the "Residential Plumbing Inspector Certification" issued by the International Code Council;

(xiv) the "Residential Mechanical Inspector Certification" issued by the International Code Council;

(xv) any other special or otherwise limited inspector certifications used by the International Code Council which certifications cover a part of the codes adopted under these rules including but not limited to each of the following: Reinforced Concrete Special Inspector, Prestressed Concrete Special Inspector, Residential Energy Inspector, Commercial Energy Inspector; or

(xvi) any combination certification which is based upon a combination of one or more of the above listed certifications.

(4) Application for License.

(a) An applicant for licensure shall:

(i) submit an application in a form prescribed by the division; and

(ii) pay a fee determined by the department pursuant to Section 63-38-3.2.

(5) Code transition provisions.

(a) If an inspector or applicant obtains a new, renewal or recertification or replacement national certificate after a new code or code edition is adopted, the inspector or applicant is required to obtain that certification under the currently adopted code or code edition.

(b) After a new code or new code edition is adopted under these rules, the inspector is required to re-certify their national certification to the new code or code edition at the next available renewal cycle of the national certification.

(c) If a licensed inspector fails to obtain the national certification as required in Subsection (a) or (b), their authority to inspect for the area covered by the national certification automatically expires at the expiration date of the national certification that was not obtained as required.

(d) If an inspector recertifies a national certificate on a newer edition of the codes adopted before that newer edition is adopted under these rules, such recertification shall be

considered as a current national certification as required by these rules.

(e) If an inspector complies with these transition provisions, the inspector shall be considered to have a current national certification as required by these rules.

**R156-56-603. Factory Built Housing Dispute Resolution Program.**

(1) Pursuant to Subsection 58-56-15(1)(f)(i), the dispute resolution program is defined and clarified as follows:

(a) Persons having disputes regarding manufactured housing issues may file a complaint with the Division.

(b) The Division shall investigate such complaints and as part of the investigation may take any of the following actions:

(i) The Division may negotiate with the parties involved for informal resolution of such complaints.

(ii) The Division may take any informal or formal action allowed by any applicable statute including, but not limited to:

(A) pursuing disciplinary proceedings under Section 58-1-401;

(B) pursing civil sanctions under Subsection 58-56-15(2); and

(C) referring matters to appropriate criminal prosecuting agencies and cooperating or assisting with the investigation and prosecution of cases by such agencies.

(c) In addition, persons having disputes regarding manufactured housing issues may also institute civil action.

**R156-56-604. Factory Built Housing Continuing Education Requirements.**

(1) Pursuant to Subsection 58-56-15(1)(f)(ii), continuing education required for manufactured housing installation contractors is defined and clarified as follows:

(a) the continuing education required by Subsection 58-55-501(21), which is effective July 1, 2005.

**R156-56-701. Specific Editions of Uniform Building Standards.**

(1) In accordance with Subsection 58-56-4(3), and subject to the limitations contained in Subsection (6), (7), and (8), the following codes are hereby incorporated by reference and adopted as the construction standards to be applied to building construction, alteration, remodeling and repair and in the regulation of building construction, alteration, remodeling and repair in the state:

(a) the 2003 edition of the International Building Code (IBC), including Appendix J promulgated by the International Code Council, and amendments adopted under these rules together with standards incorporated into the IBC by reference, including

but not limited to, the 2003 edition of the International Energy Conservation Code (IECC) promulgated by the International Code Council and the 2003 edition of the International Residential Code (IRC) promulgated by the International Code Council shall become effective on January 1, 2004;

(b) the 2002 edition of the National Electrical Code (NEC) promulgated by the National Fire Protection Association, to become effective January 1, 2003;

(c) the 2003 edition of the International Plumbing Code (IPC) promulgated by the International Code Council and amendments adopted under these rules in Section R156-56-707 shall become effective on January 1, 2004;

(d) the 2003 edition of the International Mechanical Code (IMC) together with all applicable standards set forth in the 2003 International Fuel Gas Code (IFGC) (formerly included as part of the IMC) and amendments adopted under these rules in Section R156-56-708 shall become effective on January 1, 2004;

(e) subject to the provisions of Subsection (4), the Federal Manufactured Housing Construction and Safety Standards Act (HUD Code) as promulgated by the Department of Housing and Urban Development and published in the Federal Register as set forth in 24 CFR parts 3280 and 3282 as revised April 1, 1990; and

(f) subject to the provisions of Subsection (4), the 1994 edition of NCSBCS A225.1 Manufactured Home Installations promulgated by the National Conference of States on Building Codes and Standards (NCSBCS).

(2) In accordance with Subsection 58-56-4(4), and subject to the limitations contained in Subsection 58-56-4(5), the following codes or standards are hereby incorporated by reference and approved for use and adoption by a compliance agency as the construction standards which may be applied to existing buildings in the regulation of building alteration, remodeling, repair, removal and rehabilitation in the state:

(a) the 1997 edition of the Uniform Code for the Abatement of Dangerous Buildings (UCADB) promulgated by the International Code Council;

(b) the 1997 edition of the Uniform Code for Building Conservation (UCBC) promulgated by the International Code Council;

(c) Guidelines for the Seismic Retrofit of Existing Buildings (GSREB) promulgated by the International Code Council;

(d) Guidelines for the Rehabilitation of Existing Buildings (GREB) promulgated by the International Code Council[~~.~~];

(e) Pre-standard and Commentary for the Seismic Rehabilitation of Buildings (FEMA 356) published by the Federal Emergency Management Agency.

(3) Amendments adopted by rule to prior editions of the Uniform Building Standards shall remain in effect until specifically amended or repealed.

(4) In accordance with Subsection 58-56-4(2), the following is hereby adopted as the installation standard for manufactured housing:

(a) The manufacturer's installation instruction for the model being installed;

(b) The NCSBCS/ANSI 225.1-1994, Manufactured Home Installations, promulgated by the National Conference of States on Building Codes and Standards;

(c) The manufacturer, dealer or homeowner shall be permitted to design for unusual installation of a manufactured home not provided for in the manufacturer's standard installation instruction or NCSBCS/ANSI 225.1, Manufactured Home Installations, provided the design is approved in writing by a professional engineer or architect licensed in Utah; and

(d) Guidelines for Manufactured Housing Installation as promulgated by the International Code Council may be used as a reference guide.

(5) Pursuant to the Federal Manufactured Home Construction and Safety Standards Section 604(d), a manufactured home may be installed in the state of Utah which does not meet the local snow load requirements as specified in Subsection R156-56-704; however all such homes which fail to meet the standards of Subsection R156-56-704 shall have a protective structure built over the home which meets the International Building Code and the snow load requirements under Subsection R156-56-704.

(6) To the extent that the building codes adopted under Subsection (1) establish local administrative functions or establish a method of appeal which pursuant to Section 58-56-8 are designated to be established by the compliance agency, such provisions are not included in the codes adopted hereunder but authority over such provisions are reserved to the compliance agency to establish such provisions.

(7) To the extent that the building codes adopted under Subsection (1) establish provisions, standards or references to other codes which by state statutes are designated to be established or administered by other state agencies or local city, town or county jurisdictions, such provisions are not included in the codes adopted herein but authority over such provisions are reserved to the agency or local government having authority over such provisions. Provisions excluded under this Subsection include but are not limited to:

(a) the International Property Maintenance Code;

(b) the International Private Sewage Disposal Code, authority over which would be reserved to the Department of Health and the Department of Environmental Quality;

(c) the International Fire Code which pursuant to Section 58-3-7 authority is reserved to the Utah Fire Prevention Board; and

(d) day care provisions which are in conflict with the Child Care Licensing Act, authority over which is designated to the Utah Department of Health.

(8) To the extent that the codes adopted under Subsection (1) establish provisions that exceed the authority granted to the Division, under the Utah Uniform Building Standards Act, to adopt codes or amendments to such codes by rulemaking procedures, such provisions, to the extent such authority is exceeded, are not included in the codes adopted.

**R156-56-707. Statewide Amendments to the IPC.**

The following are adopted as amendments to the IPC to be applicable statewide:

(1) In Section 202, the definition for "Backflow Backpressure, Low Head" is deleted in its entirety.

(2) In Section 202, the definition for "Backsiphonage" is deleted and replaced with the following:

Backsiphonage. The backflow of potentially contaminated, polluted or used water into the potable water system as a result of the pressure in the potable water system falling below atmospheric pressure of the plumbing fixtures, pools, tanks or vats connected to the potable water distribution piping.

(3) In Section 202, the following definition is added:

Certified Backflow Preventer Assembly Tester. A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Subsection 19-4-104(4), Utah Code Ann. (1953), as amended.

(4) In Section 202, the definition for "Cross Connection" is deleted and replaced with the following:

Cross Connection. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems (see "Backflow").

(5) In Section 202, the following definition is added:

Heat Exchanger (Potable Water). A device to transfer heat between two physically separated fluids (liquid or steam), one of which is potable water.

(6) In Section 202, the definition for "Potable Water" is deleted and replaced with the following:

Potable Water. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Titles 19-4 and 19-5, Utah Code Ann. (1953), as amended and the regulations of the public health authority having jurisdiction.

(7) In Section 202, the following definition is added:

S-Trap. A trap having its weir installed above the inlet of the vent connection.

(8) In Section 202, the following definition is added:

Trap Arm. That portion of a fixture drain between a trap weir and the vent fitting.

(9) In Section 202, the definition for "Water Heater" is deleted and replaced with the following:

Water Heater. A closed vessel in which water is heated by the combustion of fuels or electricity and is withdrawn for use external to the system at pressures not exceeding 160 psig (1100 kPa (gage)), including the apparatus by which heat is generated, and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit (99 degrees Celsius).

(10) Section 304.3 Meter Boxes is deleted.

(11) Section 304.4 is deleted and replaced with the following:

304.4 Opening of Pipes. In or on the exterior habitable envelop of structures where openings have been made in walls, floors, or ceilings for the passage of pipes, the annular space between the opening and the pipe shall not exceed 1/2 inch (12.7 mm). Openings exceeding 1/2 inch (12.7 mm) shall be closed and protected by the installation of approved metal collars that are securely fastened to the adjoining structure.

(12) Section 305.5 is deleted and replaced with the following:

305.5 Pipes through or under footings or foundation walls. Any pipe that passes under or through a footing or through a foundation wall shall be protected against structural settlement.

(13) Section 305.8 is deleted and replaced with the following:

305.8 Protection against physical damage. In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters or similar members less than 1 1/2 inches (38 mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be minimum of 1/16 inch-thick (1.6 mm) steel, shall cover the area of the pipe

where the member is notched or bored, and shall be at least the thickness of the framing member penetrated.

(14) Section 305.10 is added as follows:

Section 305.10 Improper Connections. No drain, waste, or vent piping shall be drilled and tapped for the purpose of making connections.

(15) Sections 308.7 and 308.7.1 are deleted and replaced with the following:

308.7 Anchorage. All drainage piping except ABS, PVC, CPVC, PP or any other approved piping material having solvent weld or heat fused joints shall be anchored and restrained t prevent axial movement.

308.7.1 Location. Restraints specified by an engineer and approved by the code official shall be provided for pipe sizes greater than 4 inches (102 mm), having changes in direction greater than 45 degrees and at all changes in diameter greater than two pipe sizes.

(16) Section 311.1 is deleted.

(17) Section 312.9 is deleted in its entirety and replaced with the following:

312.9 Backflow assembly testing. The premise owner or his designee shall have backflow prevention assemblies operation tested at the time of installation, repair and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly.

(18) In Section 403.1, the title for Table 403.1 is deleted and replaced with the following title and footnote f is added as follows: Table 403.1, Minimum Number of Plumbing Facilities[a, f] , (see Sections 403.2 and 403.3).

FOOTNOTE: f. When provided, in public toilet facilities there shall be an equal number of diaper changing facilities in male toilet rooms and female toilet rooms.

(19) In Section 406.3, an exception is added as follows:

Exception: Gravity discharge clothes washers, when properly trapped and vented, shall be allowed to be directly connected to the drainage system or indirectly discharge into a properly sized catch basin, trench drain, or other approved indirect waste receptor installed for the purpose of receiving such waste.

(20) A new section 406.4 is added as follows:

406.4 Automatic clothes washer metal safe pans. Metal safe pans, when installed under automatic clothes washers, shall only be allowed to receive the unintended discharge from a leaking appliance, valve, supply hose, or overflowing waste water from the clothes washer standpipe. Clothes washer metal safe pans shall not be used as indirect waste receptors to receive the discharge of waste water from any other equipment, appliance, appurtenance, drain pipe, etc. Each safe pan shall be provided with an approved trap seal primer, conforming to ASSE 1018 or 1044 or a deep seal trap. The sides of the safe pan shall be no less than 1 1/2" high and shall be soldered at the joints to provide a water tight seal.

406.4.1 Safe pan outlet. The safe pan outlet shall be no less than 1 1/2" in diameter and shall be located in a visible and accessible location to facilitate cleaning and maintenance. The outlet shall be flush with the surface of the pan so as not to allow water retention within the pan.

(21) Section 412.1 is deleted and replaced with the following:

412.1 Approval. Floor drains shall be made of ABS, PVC, cast-iron, stainless steel, brass, or other approved materials that are listed for the use.

(22) Section 412.5 is added as follows:

412.5 Public toilet rooms. All public toilet rooms shall be equipped with at least one floor drain.

(23) Section 417.5.2 is deleted and replaced with the following:

417.5.2 Shower lining. Floors under shower compartments, except where prefabricated receptors have been provided, shall be lined and made water tight utilizing material complying with Sections 417.5.2.1 through 417.5.2.4. Such liners shall turn up on all sides at least three inches (76.2 mm) above the finished threshold level. Liners shall be recessed and fastened to an approved backing so as not to occupy the space required for wall covering, and shall not be nailed or perforated at any point less than two inches (50.8 mm) above finished threshold. Liners shall be pitched one-fourth unit vertical in 12 units horizontal (2-percent slope) and shall be sloped towards the fixture drains and be securely fastened to the waste outlet at the seepage entrance, making a watertight joint between the liner and the outlet.

(24) Section 418.1 is deleted and replaced with the following:

418.1 Approval. Sinks shall conform to ANSI Z124.6, ASME A112.19.1M, ASME A112.19.2M, ASME A112.19.3M, ASME A112.19.4M, ASME A112.19.9M, CSA B45.1, CSA B45.2, CSA B45.3, CSA B45.4 or NSF 2.

(25) Section 424.3 is deleted and replaced with the following:

424.5 Shower Valves. Shower and tub-shower combination valves shall be balanced pressure, thermostatic or combination balanced-pressure/thermostatic valves that conform to the requirements of ASSE 1016 or CSA B125. Multiple (gang) showers supplied with a single tempered water supply pipe shall have the water supply for such showers controlled by an approved master thermostatic mixing valve complying with ASSE 1017. Shower and tub-shower combination valves and master thermostatic mixing valves required by this section shall be equipped with a means to limit the maximum setting of the valve to 120 degrees F (49 degrees C), which shall be field adjusted in accordance with the manufacturer's instructions. The water heater thermostat shall not be used as a water tempering device to meet this requirement.

(26) Section 502.4 is deleted and replaced with the following:

502.4 Water Heater Seismic Bracing. Water heaters shall be anchored or strapped in the upper third of the appliance to resist a horizontal force equal to one third the operating weight of the water heater, acting in any horizontal direction, or in accordance with the appliance manufacturers recommendations.

(27) Section 504.6.2 is deleted and replaced with the following:

504.6.2 Material. Relief valve discharge piping shall be of those materials listed in Table 605.5 and meet the requirements for Section 605.5 or shall be tested, rated and approved for such use in accordance with ASME A112.4.1. Piping from safety pan drains shall meet the requirements of Section 804.1 and be constructed of those materials listed in Section 702.

(28) Section 504.7.1 is amended as follows:

The measurement of "3/4 inch" in the last sentence of the paragraph is replaced with the measurement "1 1/2 inch".

(29) Section 504.7.2 is deleted and replaced with the following:

504.7.2 Pan drain termination. The pan drain shall extend full-size and terminate over a suitably located indirect waste receptor, floor drain or extend to the exterior of the building and terminate not less than 6 inches (152 mm) and not more than 24 inches (610 mm) above the adjacent ground surface. When permitted by the administrative authority, the pan drain may be directly connected to a soil stack, waste stack, or branch drain. The pan drain shall be individually trapped and vented as required in Section 907.1. The pan drain shall not be

directly or indirectly connected to any vent. The trap shall be provided with a trap primer conforming to ASSE 1018 or ASSE 1044.

(30) A new section 504.7.3 is added as follows:

504.7.3 Pan Designation. A water heater pan shall be considered an emergency receptor designated to receive the discharge of water from the water heater only and shall not receive the discharge from any other fixtures, devises or equipment.

(31) Section 602.3 is deleted and replaced with the following:

602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Sections 73-3-1, 73-3-3, and 73-3-25, Utah Code Ann. (1953), as amended, as administered by the Department of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction. The source shall supply sufficient quantity of water to comply with the requirements of this chapter.

(32) Sections 602.3.1, 602.3.2, 602.3.3, 602.3.4, 602.3.5 and 602.3.5.1 are deleted in their entirety.

(33) Section 604.4.1 is added as follows:

604.4.1 Metering faucets. Self closing or metering faucets shall provide a flow of water for at least 15 seconds without the need to reactivate the faucet.

(34) Section 606.5 is deleted and replaced with the following:

606.5 Water pressure booster systems. Water pressure booster systems shall be provided as required by Section 606.5.1 through 606.5.11.

(35) Section 606.5.11 is added as follows:

606.5.11 Prohibited installation. In no case shall a booster pump be allowed that will lower the pressure in the public main to less than 20 psi.

(36) In Section 608.1, the following sentence is added at the end of the paragraph:

Connection without an air gap between potable water piping and sewer-connected waste shall not exist under any condition.

(37) Table 608.1 is deleted and replaced with the following:

TABLE 608.1
General Methods of Protection

| Assembly | Degree | Application | Installation Criteria |
|---|---|---|---|

| | | | |
|---|---|---|---|
| (applicable of standard) Air Gap (ASME A112.1.2) | Hazard High or Low | Backsiphonage | See Table 608.15.1 |
| Reduced Pressure Principle Backflow Preventer (AWWA C511, USC-FCCCHR, ASSE 1013 CSA CNA/CSA-B64.4) and Reduced Pressure Detector Assembly (ASSE 1047, USC-FCCCHR) | High or Low | Backpressure or Backsiphonage 1/2" - 16" | a. The bottom of each RP assembly shall be a minimum of 12 inches above the ground or floor.<br>b. RP assemblies shall NOT be installed in a pit.<br>c. The relief valve on each RP assembly shall not be directly connected to any waste disposal line, including sanitary sewer, storm drains, or vents.<br>d. The assembly shall be installed in a horizontal position only unless listed or approved for vertical installation. |
| Double Check Backflow assembly Prevention Assembly (AWWA C510, USC-FCCCHR, ASSE 1015) Double Check Detector Assembly Backflow Preventer (ASSE 1048, USC-FCCCHR) | Low | Backpressure or Backsiphonage 1/2" - 16" | a. If installed in a pit, the DC shall be installed with a minimum of 12 inches of clearance between all sides of the vault including the floor and roof or ceiling with adequate room for testing and maintenance.<br>b. Shall be installed in a horizontal |

| | | | |
|---|---|---|---|
| | | | position unless listed or approved for vertical installation. |
| Pressure Vacuum Breaker Assembly (ASSE 1020, USC-FCCCHR) | High or Low | Backsiphonage 1/2" - 2" | a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions.<br>b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.<br>c. Shall not be installed below ground or in a vault or pit.<br>d. Shall be installed in a vertical position only. |
| Spill Resistant Vacuum Breaker (ASSE 1056, USC-FCCCHR) | High or Low | Backsiphonage 1/4" - 2" | a. Shall not be installed in an area that could be subjected to backpressure or back drainage conditions.<br>b. Shall be installed a minimum of 12 inches above all downstream piping and the highest point of use.<br>c. Shall not be installed below ground or in a vault or pit.<br>d. Shall be installed in a vertical position only. |
| Atmospheric | High or | Backsiphonage | a. Shall not be |

| | | | |
|---|---|---|---|
| Vacuum Breaker (ASSE 1001 USC-FCCCHR, back CSA CAN/CSA-B64.1.1 conditions. | Low | | installed in an area that could be subjected to backpressure or drainage<br>b. Shall not be installed where it may be subjected to continuous pressure for more than 12 consecutive hours at any time.<br>c. Shall be installed a minimum of six inches above all downstream piping and the highest point of use.<br>d. Shall be installed on the discharge (downstream) side of any valves.<br>e. The AVB shall be installed in a vertical position only. |
| General Installation Criteria | | | The assembly owner, when necessary, shall provide devices or structures to facilitate testing, repair, and/or maintenance and to insure the safety of the backflow technician. Assemblies shall not be installed more than five feet off the floor unless a permanent platform |

| | | | |
|---|---|---|---|
| | | is installed. | |
| | | The body of the assembly shall not be closer than 12 inches to any wall, ceiling or incumbrance, and shall be accessible for testing, repair and/or maintenance. | |
| | | In cold climates, assemblies shall be protected from freezing by a means acceptable to the code official. | |
| | | Assemblies shall be maintained as an intact assembly. | |

(38) Table 608.1.1 is added as follows:

TABLE 608.1.1
Specialty Backflow Devices for low hazard use only

| Device | Degree of Hazard | Application | Applicable Standard |
|---|---|---|---|
| Antisiphon-type Water Closet Flush Tank Ball Cock | Low | Backsiphonage | ASSE 1002 CSA CAN/ CSA-B125 |
| Dual check valve Backflow Preventer | Low | Backsiphonage or Backpressure 1/4" - 1" | ASSE 1024 |
| Backflow Preventer with Intermediate Atmospheric Vent | Low Residential Boiler | Backsiphonage or Backpressure 1/4" - 3/4" | ASSE 1012 CSA CAN/ CSA-B64.3 |
| Dual check valve [~~1032~~]1022 type Backflow Preventer for | Low | Backsiphonage or Backpressure 1/4" - 3/8" | ASSE |

| | | | |
|---|---|---|---|
| Carbonated Beverage Dispensers/Post Mix Type | | | |
| Hose-connection Vacuum Breaker | Low | Backsiphonage 1/2", 3/4", 1" | ASSE 1011 CSA CAN/ CSA-B64.2 |
| Vacuum Breaker Wall Hydrants, Frost-resistant, Automatic Draining Type | Low | Backsiphonage 3/4", 1" | ASSE 1019 CSA CAN/ CSA-B64.2.2 |
| Laboratory Faucet Backflow Preventer | Low | Backsiphonage | ASSE 1035 CSA CAN/ CSA-B64.7 |
| Hose Connection Backflow Preventer | Low | Backsiphonage 1/2" - 1" | ASSE 1052 |

Installation Guidelines: The above specialty devices shall be installed in accordance with their listing and the manufacturer's instructions and the specific provisions of this chapter.

(39) In Section 608.3.1, the following sentence is added at the end of the paragraph:

All piping and hoses shall be installed below the atmospheric vacuum breaker.

(40) Section 608.7 is deleted in its entirety.

(41) In Section 608.8, the following sentence is added at the end of the paragraph:

In addition each nonpotable water outlet shall be labeled with the words "CAUTION: UNSAFE WATER, DO NOT DRINK".

(42) In Section 608.11, the following sentence is added at the end of the paragraph:

The coating shall conform to NSF Standard 61 and application of the coating shall comply with the manufacturers instructions.

(43) Section 608.13.3 is deleted and replaced with the following:

608.13.3 Backflow preventer with intermediate atmospheric vent. Backflow preventers with intermediate atmospheric vents shall conform to ASSE 1012 or CAS CAN/CAS-B64.3. These devices shall be permitted to be installed on residential boilers only where subject to continuous pressure conditions. The relief opening shall discharge by air gap and shall be prevented from

being submerged.

(44) Section 608.13.4 is deleted in its entirety.

(45) Section 608.15.3 is deleted and replaced with the following:

608.15.3 Protection by a backflow preventer with intermediate atmospheric vent. Opening and outlets to residential boilers only shall be protected by a backflow preventer with an intermediate atmospheric vent.

(46) Section 608.15.4 is deleted and replaced with the following:

608.15.4 Protection by a vacuum breaker. Openings and outlets shall be protected by atmospheric-type or pressure-type vacuum breakers. The critical level of the atmospheric vacuum breaker shall be set a minimum of 6 inches (152 mm) above the flood level rim of the fixture or device. The critical level of the pressure vacuum breaker shall be set a minimum of 12 inches (304 mm) above the flood level rim of the fixture or device. Ball cocks shall be set in accordance with Section 425.3.1. Vacuum breakers shall not be installed under exhaust hoods or similar locations that will contain toxic fumes or vapors. Pipe-applied vacuum breakers shall be installed not less than 6 inches (152 mm) above the flood level rim of the fixture, receptor or device served. No valves shall be installed downstream of the atmospheric vacuum breaker.

(47) Section 608.15.4.2 is deleted and replaced with the following:

608.15.4.2 Hose connections. Sillcocks, hose bibbs, wall hydrants and other openings with a hose connection shall be protected by an atmospheric-type or pressure-type vacuum breaker or a permanently attached hose connection vacuum breaker. Add-on-type backflow prevention devices shall be non-removable. In climates where freezing temperatures occur, a listed self-draining frost proof hose bibb with an integral backflow preventer shall be used.

(48) In Section 608.16.2, the first sentence of the paragraph is deleted and replaced as follows:

608.16.2 The potable water supply to the residential boiler shall be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA CAN/CSA B64.3.

(49) Section 608.16.3 is deleted and replaced with the following:

608.16.3 Heat exchangers. Heat exchangers shall be separated from potable water by double-wall construction. An air gap open to the atmosphere shall be provided between the two walls.

Exceptions:

1. Single wall heat exchangers shall be permitted when all of the following conditions are met:

a. It utilizes a heat transfer medium of potable water or contains only substances which are recognized as safe by the United States Food and Drug Administration (FDA);

b. The pressure of the heat transfer medium is maintained less than the normal minimum operating pressure of the potable water system; and

c. The equipment is permanently labeled to indicate only additives recognized as safe by the FDA shall be used.

2. Steam systems that comply with paragraph 1 above.

3. Approved listed electrical drinking water coolers.

(50) In Section 608.16.4.1, add the following exception:

Exception: All class 1 and 2 systems containing chemical additives consisting of strictly glycerine (C.P. or U.S.P. 96.5 percent grade) or propylene glycol shall be protected against backflow with a double check valve assembly. Such systems shall include written certification of the chemical additives at the time of original installation and service or maintenance.

(51) Section 608.16.5 is deleted and replaced with the following:

608.16.5 Connections to lawn irrigation systems. The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric-type vacuum breaker, a pressure-type vacuum breaker, a double check valve backflow preventer or a reduced pressure principle backflow preventer. A valve shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow preventer.

(52) Section 608.16.7 is deleted and replaced with the following:

608.16.7 Chemical dispensers. Where chemical dispensers connect to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2, Section 608.13.5, Section 608.13.6 or Section 608.13.8.

(53) Section 608.16.8 is deleted and replaced with the following:

608.16.8 Portable cleaning equipment. Where the portable cleaning equipment connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2 or Section 608.13.8.

(54) Section 608.16.9 is deleted and replaced with the following:

608.16.9 Dental pump equipment or water syringe. Where

dental pumping equipment or water syringes connects to the water distribution system, the water supply system shall be protected against backflow in accordance with Section 608.13.1, Section 608.13.2, Section 608.13.5, Section 608.13.6 or Section 608.13.8.

(55) Section 608.16.10 is added as follows:

608.16.10 Automatic and coin operated car washes. The water supply to an automatic or coin operated car wash shall be protected in accordance with Section 608.13.1 or Section 608.13.2.

(56) Section 608.17 is deleted in its entirety.

(57) Section 701.2 is deleted and replaced with the following:

701.2 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is within 300 feet of the property line in accordance with Section 10-8-38, Utah Code Ann., (1953), as amended; or an approved private sewage disposal system in accordance with Rule R317-501 through R317-513 and Rule R317-5, Utah Administrative Code, as administered by the Department of Environmental Quality, Division of Water Quality.

(58) Section 802.3.2 is deleted in its entirety and replaced with the following:

802.3.2 Open hub waste receptors. Waste receptors for clear water waste shall be permitted in the form of a hub or pipe extending not more than 1/2 inch above a water impervious floor and are not required to have a strainer.

(59) Section 904.1 is deleted and replaced with the following:

904.1 Roof extensions. All open vent pipes that extend through a roof shall be terminated at least 12 inches (304.8 mm) above the roof, except that where a roof is to be used for any purpose other than weather protection, the vent extension shall be run at least 7 feet (2134 mm) above the roof.

(60) In Section 904.6, the following sentence is added at the end of the paragraph:

Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward.

(61) In Section 905.4, the following sentence is added at the end of the paragraph:

Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed in accordance with Sections 702.2, 905.2 and 905.3 and provided with a wall clean out.

(62) Section 1002.2 is deleted and replaced with the following:

1002.2 Design of traps. Fixture traps shall be self-scouring. Fixture traps shall not have interior partitions, except where such traps are integral with the fixture or where such traps are constructed of an approved material that is resistant to corrosion and degradation. Slip joints shall be made with an approved elastomeric gasket and shall only be installed on the trap inlet, trap outlet and within the trap seal. One slip joint fitting shall be allowed to be installed downstream of the trap.

(63) Section 1002.8 is deleted and replaced with the following:

1002.8 Recess for trap connection. A recess provided for connection of the underground trap, such as one serving a bathtub in slab-type construction, shall have sides and a bottom of corrosion-resistant, insect- and vermin-proof construction. The annular space between the pipe and the penetration shall not exceed 1/2 inch (12.7 mm).

(64) Section 1003.3.5 is added as follows:

1003.3.5 Grease trap restriction. Unless specifically required or permitted by the code official, no food waste grinder or dishwasher shall be connected to or discharge into any grease trap.

(65) Section 1104.2 is deleted and replaced with the following:

1104.2 Combining storm and sanitary drainage prohibited. The combining of sanitary and storm drainage systems is prohibited.

(66) Section 1108 is deleted in its entirety.

(67) Chapter 13, Referenced Standards, is amended as follows:

NSF - Standard Reference Number 61-99 - The following referenced in code section number is added: 608.11

The following reference standard is added:

TABLE

| | | |
|---|---|---|
| USC-FCCCHR 9th Edition Manual of Cross Connection Control | Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531 | Table 608.1 |

(68) Appendix C of the IPC, Gray Water Recycling Systems as amended herein shall not be adopted by any local jurisdiction

until such jurisdiction has requested Appendix C as amended to be adopted as a local amendment and such local amendment has been approved as a local amendment under these rules.

(69) In jurisdictions which have adopted Appendix C as amended as a local amendment as provided herein, Section 301.3 of the IPC is deleted and replaced with the following:

301.3 Connection to the drainage system. All plumbing fixtures, drains, appurtenances and appliances used to receive or discharge liquid wastes or sewage shall be directly connected to the drainage system of the building or premises, in accordance with the requirements of this Code. This section shall not be construed to prevent indirect waste systems provided for in Chapter 8.

Exception: Bathtubs, showers, lavatories, clothes washers and laundry sinks shall not be required to discharge to the sanitary drainage system where such fixtures discharge to a gray water recycling system meeting all the requirements as specified in Appendix C as amended by these rules.

(70) Appendix C is deleted and replaced with the following, to be effective only in jurisdictions which have adopted Appendix C as amended as a local amendment under these rules:

Appendix C, Gray Water Recycling Systems, C101 Gray Water Recycling Systems

C101.1 General, recycling gray water within a building. In R1, R2 and R4 occupancies and one- and two-family dwellings, gray water recycling systems are prohibited.

In commercial occupancies, recycled gray water shall only be utilized for the flushing of water closets and urinals that are located in the same building as the gray water recycling system, provided the following conditions are met:

1. Such systems comply with Sections C101.1 through C101.14 as amended by these rules.

2. The commercial establishment demonstrates that it has and will have qualified staff to oversee the gray water recycling systems. Qualified staff is defined as level 3 waste water treatment plan operator as specified by the Department of Environmental Quality.

3. Gray water recycling systems shall only receive non hazardous waste discharge of bathtubs, showers, lavatories, clothes washers and laundry sinks such as chemicals having a pH of 6.0 to 9.0, or non flammable or non combustible liquids, liquids without objectionable odors, non-highly pigmented liquids, or other liquids that will not interfere with the operation of the sewer treatment facilities.

C101.2 Permit required. A permit for any gray water recycling system shall not be issued until complete plans

prepared by a licensed engineer, with appropriate data satisfactory to the Code Official, have been submitted and approved. No changes or connections shall be made to either the gray water recycling system or the potable water system within any site containing a gray water recycling system, without prior approved by the Code Official. A permit may also be required by the local health department to monitor compliance with this appendix for system operator standards and record keeping.

C101.3 Definition. The following term shall have the meaning shown herein.

GRAY WATER. Waste water discharged from lavatories, bathtubs, showers, clothes washers and laundry sinks.

C101.4 Installation. All drain, waste and vent piping associated with gray water recycling systems shall be installed in full compliance with this code.

C101.5 Gray Water Reservoir. Gray water shall be collected in an approved reservoir construction of durable, nonabsorbent and corrosion-resistant materials. The reservoir shall be a closed and gas-tight vessel. Gas tight access openings shall be provided to allow inspection and cleaning of the reservoir interior. The holding capacity of the reservoir shall be a minimum of twice the volume of water required to meet the daily flushing requirements of the fixtures supplied by the gray water, but not less than 50 gallons (189 L). The reservoir shall be sized to limit the retention time of gray water to 72 hours maximum.

C101.6 Filtration. Gray water entering the reservoir shall pass through an approved cartridge filter or other method approved by the Code Official.

C101.7 Disinfection. Gray water shall be disinfected by an approved method that employs one or more disinfectants such as chlorine, iodine or ozone. A minimum of 1 ppm free residual chlorine shall be maintained in the gray water recycling system reservoir. Such disinfectant shall be automatically dispensed. An alarm shall be provided to shut down the gray water recycling system if disinfectant levels are not maintained at the required levels.

C101.8 Makeup water. Potable water shall be supplied as a source of makeup water for the gray water recycling system. The potable water supply to any building with a gray water recycling system shall be protected against backflow by an RP backflow assembly installed in accordance with this code. There shall be full-open valve on the makeup water supply to the reservoir. The potable water supply to the gray water reservoir shall be protected by an air gap installed in accordance with this code.

C101.9 Overflow. The reservoir shall be equipped with an overflow pipe of the same diameter as the influent pipe for the

gray water. The overflow shall be directly connected to the sanitary drainage system.

C101.10 Drain. A drain shall be located at the lowest point of the reservoir and shall be directly connected to the sanitary drainage system. The drain shall be the same diameter as the overflow pipe required by Section C101.9 and shall be provided with a full-open valve.

C101.11 Vent required. The reservoir shall be provided with a vent sized in accordance with Chapter 9 based on the size of the reservoir influent pipe.

C101.12 Coloring. The gray water shall be automatically dyed blue or green with a food grade vegetable dye before such water is supplied to the fixtures.

C101.13 Identification. All gray water distribution piping and reservoirs shall be identified as containing non-potable water. Gray water recycling system piping shall be permanently colored purple or continuously wrapped with purple-colored Mylar tape. The tape or permanently colored piping shall be imprinted in black, upper case letters with the words "CAUTION: GRAY WATER, DO NOT DRINK."

All equipment areas and rooms for gray water recycling system equipment shall have a sign posted in a conspicuous place with the following text: TO CONSERVE WATER, THIS BUILDING USES GRAY WATER TO FLUSH TOILETS AND URINALS, DO NOT CONNECT TO THE POTABLE WATER SYSTEM. The location of the signage shall be determined by the Code Official.

C101.14 Removal from service. All gray water recycling systems that are removed from service shall have all connections to the reservoir capped and routed back to the building sewer. All gray water distribution lines shall be replaced with new materials.

C201.1 Outside the building. Gray water reused outside the building shall comply with the requirements of the Department of Environmental Quality Rule R317.

**R156-56-709. Statewide Amendments to the IFGC.**

The following are adopted as amendments to the IFGC to be applicable statewide:

(1) The following paragraph is added at the end of Section 305.1

305.1 General. After natural gas, space and water heating appliances have been adjusted for altitude and the Btu content of the natural gas, the installer shall apply a sticker in a visible location indicating that the proper adjustments to such appliances have been made. The adjustments for altitude and the Btu content of the natural gas shall be done in accordance with the manufacturer's installation instructions and the gas

utility's approved practices.

([~~1~~]2) Chapter 4, Section 401 General, a new section 401.9 is added as follows:

401.9 Meter protection. Gas meters shall be protected from physical damage, including falling ice and snow.

**R156-56-711. Statewide Amendments to the IRC.**

The following are adopted as amendments to the IRC to be applicable statewide:

(1) All amendments to the IBC under Section R156-56-704, local amendments under Section R156-56-705, the NEC under Section R156-56-706, the IPC under Section R156-56-707, the IMC under Section R156-56-708, the IFGC under Section R156-56-709 and the IECC under Section R156-56-710 which may be applied to detached one and two family dwellings and multiple single family dwellings shall be applicable to the corresponding provisions of the IRC. All references to the International Electrical Code are deleted and replaced with the National Electrical Code adopted under Section R156-56-701(1)(b). Should there be any conflicts between the NEC and the IRC, the NEC shall prevail.

(2) In Section 109, a new section is added as follows:

R109.1.5 Weather-resistive barrier and flashing inspections. An inspection shall be made of the weather-resistive barrier as required by Section R703.1 and flashings as required by Section R703.8 to prevent water from entering the weather-resistant exterior wall envelope.

The remaining sections are renumbered as follows:

R109.1.6 Other inspections

R109.1.6.1 Fire-resistance-rated construction inspection

R109.1.7 Final inspection.

(3) Section R114.1 is deleted and replaced with the following:

R114.1 Notice to owner. Upon notice from the building official that work on any building or structured is being prosecuted contrary to the provisions of this code or other pertinent laws or ordinances or in an unsafe and dangerous manner, such work shall be immediately stopped. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent or to the person doing the work; and shall state the conditions under which work will be permitted to resume.

(4) In Section R202, the definition of “Backsiphonage” is deleted and replaced with the following:

BACKSIPHONAGE: The backflow of potentially contaminated, polluted or used water into the potable water system as a result of the pressure in the potable water system falling below atmospheric pressure of the plumbing fixtures, pools, tanks or

vats connected to the potable water distribution piping.

(5) In Section R202 the following definition is added:

CERTIFIED BACKFLOW PREVENTER ASSEMBLY TESTER: A person who has shown competence to test Backflow prevention assemblies to the satisfaction of the authority having jurisdiction under Subsection 19-4-104(4), Utah Code Ann. (1953), as amended.

(6) In Section R202 the definition of “Cross Connection” is deleted and replaced with the following:

CROSS CONNECTION. Any physical connection or potential connection or arrangement between two otherwise separate piping systems, one of which contains potable water and the other either water of unknown or questionable safety or steam, gas or chemical, whereby there exists the possibility for flow from one system to the other, with the direction of flow depending on the pressure differential between the two systems(see “Backflow, Water Distribution”).

(7) In Section R202 the following definition is added:

HEAT exchanger (Potable Water). A device to transfer heat between two physically separated fluids (liquid or steam), one of which is potable water.

(8) In Section R202 the definition of “Potable Water” is deleted and replaced with the following:

POTABLE WATER. Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming to the Titles 19-4 and 19-5, Utah Code Ann. (1953), as amended and the regulations of the public health authority having jurisdiction.

(9) In Section R202, the following definition is added:

S-Trap. A trap having it's weir installed above the inlet of the vent connection.

(10) In Section R202 the definition of “Water Heater” is deleted and replaced with the following:

WATER HEATER. A closed vessel in which water is heated by the combustion of fuels or electricity and is withdrawn for use externally to the system at pressures not exceeding 160 psig (1100 kPa (gage)), including the apparatus by which heat is generated, and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit (99 degrees Celsius).

(11) Section R301.5 is deleted and replaced with the following:

R301.5 Live Load. The minimum uniformly distributed live load shall be as provided in Table R301.5.

TABLE R301.5
MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS
(in pounds per square foot)

| USE | LIVE LOAD |
|---|---|
| Attics with storage (b), (e) | 20 |
| Attics without storage (b), (e), (g) | 10 |
| Decks (f) | 60 |
| Exterior balconies | 60 |
| Fire escapes | 40 |
| Guardrails and handrails (d) | 200 |
| Guardrails in-fill components (f) | 50 |
| Passenger vehicle garages (a) | 50(a) |
| Rooms other than sleeping rooms | 40 |
| Sleeping rooms | 30 |
| Stairs | 40(c) |

For SI: 1 pound per square foot = 0.0479kN/$m^2$, 1 square inch = 645 $mm^2$ 1 pound = 4.45N.

(a) Elevated garage floors shall be capable of supporting a 2,000-pound load applied over a 20-square-inch area.

(b) No storage with roof slope not over 3 units in 12 units.

(c) Individual stair treads shall be designed for the uniformly distributed live load or a 300-pound concentrated load acting over an area of 4 square inches, whichever produces the greater stresses.

(d) A single concentrated load applied in any direction at any point along the top.

(e) Attics constructed with wood trusses shall be designated in accordance with Section R802.10.1.

(f) See Section R502.2.1 for decks attached to exterior walls.

(g) This live load need not be considered as acting simultaneously with other live loads imposed upon the ceiling framing or its supporting structure.

(12) Section R304.3 is deleted and replaced with the following:

R304.3 Minimum dimensions. Habitable rooms shall not be less than 7 feet (2134 mm) in any horizontal dimension.

Exception: Kitchens shall have a clear passageway of not less than 3 feet (914 mm) between counter fronts and appliances or counter fronts and walls.

(13) Section R311.5.3 is deleted and replaced with the following:

R311.5.3 Treads and risers. The maximum riser height shall be 8 inches (203 mm) and the minimum tread depth shall be 9 inches (229 mm). The riser height shall be measured vertically between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of

the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2-percent slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

R311.5.3.3 Profile. The radius of curvature at the leading edge of the tread shall be no greater than 9/16 inch (14.3 mm). A nosing not less than 3/4 inch (19.1 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers. The greatest nosing projection shall not exceed shall not exceed the smallest nosing projection by more than 3/8 inches (9.5 mm) between two stories, including the nosing at the level of floors and landings. Beveling of nosing shall not exceed 1/2 inch (12.7 mm). Risers shall be vertical or sloped from the underside of the leading edge of the tread above at an angle not more than 30 degrees from the vertical. Open risers are permitted, provided that the opening between treads does not permit the passage of a 4-inch diameter (102 mm) sphere.

Exceptions.

1. A nosing is not required where the tread depth is a minimum of 10 inches (254 mm).

2. The opening between adjacent treads is not limited on stairs with a total rise of 30 inches (762 mm) or less.

(14) Section R311.5.6 is deleted and replaced with the following:

R311.5.6 Handrails. Handrails shall be provided on at least one side of stairways consisting of four or more risers. Handrails shall have a minimum height of 34 inches (864 mm) and a maximum height of 38 inches (965 mm) measured vertically from the nosing of the treads. All required handrails shall be continuous the full length of the stairs from a point directly above the top riser to a point directly above the lowest riser of the stairway. The ends of the handrail shall be returned into a wall or shall terminate in newel post or safety terminals. A minimum clear space of 1 1/2 inches (38 mm) shall be provided between the wall and the handrail.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at a turn.

2. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.

(15) Section R311.5.6.3 is deleted and replaced with the following:

R311.5.6.3 Handrail grip size. The handgrip portion of

handrails shall have a circular cross section of 1 1/4 inches (32mm) minimum to 2 5/8 inches (67mm) maximum. Edges shall have a minimum radius of 1/8 inch (3.2mm).

Exception: Non-circular handrails shall be permitted to have a maximum cross sectional dimension of 3.25 inches (83mm) measured 2 inches (51 mm) down from the top of the crown. Such handrail is required to have an indentation on both sides between 0.625 inch (16mm) and 1.5 inches (38mm) down from the top or crown of the cross section. The indentation shall be a minimum of 0.25 inch (6mm) deep on each side and shall be at least 0.5 inch (13 mm)high. Edges within the handgrip shall have a minimum radius of 0.0625 inch (2 mm). The handrail surface shall be smooth with no cusps so as to avoid catching clothing or skin.

(16) Section R313 is deleted and replaced with the following:

R313.1 Single- and multiple-station smoke alarms. Single- and multiple-station smoke alarms shall be installed in the following locations:

1. In each sleeping room.

2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.

3. On each additional story of the dwelling, including basements and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provision of NFPA 72.

R313.2 Carbon monoxide alarms. In new residential structures regulated by this code that are equipped with fuel burning appliances, carbon[~~Carbon~~] monoxide alarms shall be installed on each habitable level [~~of a dwelling unit equipped with fuel burning appliances~~]. All carbon monoxide detectors shall be listed and comply with U.L. 2034 and shall be installed in accordance with provisions of this code and NFPA 720.

R313.3 Interconnection of alarms. When multiple alarms are required to be installed within an individual dwelling unit, the alarm devices shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. Approved combination smoke- and carbon-monoxide detectors shall be permitted.

R313.4 Power source. In new construction, the required alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Alarms shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations, repairs, or additions regulated by Section R313.5

R313.5 Alterations, repairs and additions. When interior alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with alarms located as required for new dwellings; the alarms shall be interconnected and hard wired.

Exceptions:

1. Alarms in existing areas shall not be required to be interconnected and hard wired where the alterations or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space, or basement available which could provide access for hard wiring and interconnection without the removal of interior finishes.

2. Repairs to the exterior surfaces of dwellings are exempt from the requirements of this section.

(17) In Section 317.3.2 Exception 1.1 is deleted and replaced with the following:

1.1 By a horizontal distance of not less than the width of a stud space regardless of stud spacing, or

(18) In Section R403.1.4.1 exception 1 is deleted and replaced with the following:

1. Freestanding accessory structures, not intended for human occupancy, with an area of 1,000 square feet ($93m^2$) or less, of wood framed construction, with an eave height of 10 feet (3080 mm) or less shall not be required to be protected.

(19) In Section R403.1.6 the exception is deleted and replaced with the following exceptions:

Exceptions:

1. Foundation anchor straps, spaced as required to provide equivalent anchorage to 1/2 inch diameter (12.7 mm) anchor bolts.

2. When anchor bolt spacing does not exceed 32 inches (816 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines and at all exterior walls.

(20) In Section R403.1.6.1 the following exception is added at the end of Item 2 and Item 3:

Exception: When anchor bolt spacing does not exceed 32 inches (816 mm) apart, anchor bolts may be placed with a minimum of two bolts per plate section located not less than 4 inches (102 mm) from each end of each plate section at interior bearing walls, interior braced wall lines and at all exterior walls.

(21) Section R703.6 is deleted and replaced with the following:

R703.6 Exterior plaster.

R703.6.1 Lath. All lath and lath attachments shall be of corrosion-resistant materials. Expanded metal or woven wire lath shall be attached with 1 1/2 inch-long (38 mm), 11 gage nails having 7/16 inch (11.1 mm) head, or 7/8-inch-long (22.2 mm), 16 gage staples, spaced at no more than 6 inches (152 mm), or as otherwise approved.

R703.6.2 Weather-resistant barriers. Weather-resistant barriers shall be installed as required in Section R703.2 and, where applied over wood-based sheathing, shall include a weather-resistive vapor permeable barrier with a performance at least equivalent to two layers of Grade D paper.

R703.6.3 Plaster. Plastering with portland cement plaster shall be not less than three coats when applied over metal lath or wire lath and shall be not less than two coats when applied over masonry, concrete or gypsum backing. If the plaster surface is completely covered by veneer or other facing material or is completed concealed, plaster application need be only two coats, provided the total thickness is as set forth in Table R702.1(1). On wood-frame construction with an on-grade floor slab system, exterior plaster shall be applied in such a manner as to cover, but not extend below, lath, paper and screed.

The proportion of aggregate to cementitious materials shall be as set forth in Table R702.1(3).

(22) In Section R703.8, number 8 is added as follows:

8. At the intersection of foundation to stucco, masonry, siding, or brick veneer with an approved corrosive-resistance flashing with a 1/2" drip leg extending past exterior side of the foundation.

(23) A new Section G2401.2 is added as follows:

G2401.2 Meter Protection. Gas meters shall be protected from physical damage, including falling ice and snow.

(24) Section P2602.3 is added as follows:

P2602.3 Individual water supply. Where a potable public water supply is not available, individual sources of potable water supply shall be utilized provided that the source has been developed in accordance with Sections 73-3-1 and 73-3-25, Utah Code Ann. (1953), as amended, as administered by the Department

of Natural Resources, Division of Water Rights. In addition, the quality of the water shall be approved by the local health department having jurisdiction.

(25) Section P2602.4 is added as follows:

P2602.4 Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer where the sewer is within 300 feet of the property line in accordance with Section 10-8-38, Utah Code Ann, (1953), as amended; or an approved private sewage disposal system in accordance with Rule R317-501 through R317-513 and Rule R317-5, Utah Administrative Code, as administered by the Department of Environmental Quality, Division of Water Quality.

(26) Section P2603.2.1 is deleted and replaced with the following:

P2603.2.1 Protection against physical damage. In concealed locations where piping, other than cast-iron or galvanized steel, is installed through holes or notches in studs, joists, rafters, or similar members less than 1 1/2 inch (38 mm) from the nearest edge of the member, the pipe shall be protected by shield plates. Protective shield plates shall be a minimum of 1/16 inch-thick (1.6 mm) steel, shall cover the area of the pipe where the member is notched or bored, and shall be at least the thickness of the framing member penetrated.

(27) Section P2801.2.1 is added as follows:

P2801.2.1 Water heater seismic bracing. In Seismic Design Categories C, $D_1$ and $D_2$, water heaters shall be anchored or strapped in the upper third of the appliance to resist a horizontal force equal to one third the operating weight of the water heater, acting in any horizontal direction, or in accordance with the appliance manufacturers recommendations.

(28) Section P2902.1.1 is added as follows:

P2902.1.1 Backflow assembly testing. The premise owner or his designee shall have backflow prevention assemblies operation tested at the time of installation, repair and relocation and at least on an annual basis thereafter, or more frequently as required by the authority having jurisdiction. Testing shall be performed by a Certified Backflow Preventer Assembly Tester. The assemblies that are subject to this paragraph are the Spill Resistant Vacuum Breaker, the Pressure Vacuum Breaker Assembly, the Double Check Backflow Prevention Assembly, the Double Check Detector Assembly Backflow Preventer, the Reduced Pressure Principle Backflow Preventer, and Reduced Pressure Detector Assembly.

(29) Section P3003.2.1 is added as follows:

Section P3003.2.1 Improper Connections. No drain, waste, or vent piping shall be drilled and tapped for the purpose of

making connections.

(30) In Section P3103.6, the following sentence is added at the end of the paragraph:

Vents extending through the wall shall terminate not less than 12 inches from the wall with an elbow pointing downward.

(31) In Section P3104.4, the following sentence is added at the end of the paragraph:

Horizontal dry vents below the flood level rim shall be permitted for floor drain and floor sink installations when installed below grade in accordance with Chapter 30, and Sections P3104.2 and P3104.3. A wall cleanout shall be provided in the vertical vent.

(32) Chapter 43, Referenced Standards, is amended as follows:

The following reference standard is added:

TABLE

| | | |
|---|---|---|
| USC-FCCCHR 9th Edition Manual of Cross Connection Control | Foundation for Cross-Connection Control and Hydraulic Research University of Southern California Kaprielian Hall 300 Los Angeles CA 90089-2531 | Section P2902 |

(33) In Chapter 43, the following standard is added under NFPA as follows:

TABLE

| | | |
|---|---|---|
| 720-98 | Recommended Practice for the Installation of Household Carbon Monoxide (CO) Warning Equipment | R313.2 |

**KEY: contractors, building codes, building inspection, licensing**

**[~~August 17, 2004~~]2005**

**Notice of Continuation May 16, 2002**

**58-1-106(1)(a)**
**58-1-202(1)(a)**
**58-56-1**
**58-56-4(2)**
**58-56-6(2)(a)**